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EXAMINER	
PHAM, CHRYSTINE	
ART UNIT	**PAPER NUMBER**
2192	

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/894,331	HEJLSBERG ET AL.	
	Examiner	Art Unit	
	Chrystine Pham	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *24 May 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,8-12,16-20,22-24,26 and 27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,8-12,16-20,22-24,26 and 27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to Amendment filed on May 24th 2005. Claims 1-3, 5, 8-12, 16, and 26 have been amended. Claims 6, 7, 13-15, 21, 25, 28-43 have been canceled. Claims 1-5, 8-12, 16-20, 22-24, 26, and 27 are presented for examination.

Response to Amendment

2. In view of the amendment of claim 8 to refer to base claim 1 instead of the canceled claim 7, objection of claim 8 is hereby withdrawn.

3. In view of the amendment of claims 11, and 12 to correct the identified grammatical errors, objection of claims 11, and 12 is here by withdrawn.

4. In view of the amendment of claim 26 made in response to claim rejection under 35 USC 112, second paragraph, rejection of claim under 35 USC 112, second paragraph is hereby withdrawn.

5. In view of the amendment of claims 1, 16 and 27 in response to rejection of claims under 35 USC 101, rejection of claims 1-5, 8-12, 22-24, 26 and 27 is hereby withdrawn.

Response to Arguments

6. Applicant's arguments filed May 24th 2005 have been fully considered but they are not persuasive.

7. With respect to rejection of claim 27 under 35 USC 101, the claim has been reconsidered as a statutory claim, as it has been treated and/or limited to a tangible product or medium when the claim called for "A computer readable medium storing computer executable instructions..." (emphasis added).

8. With respect to rejection of claims 1, 16, and 27, the Applicants essentially contend that Cseri does not disclose *a reader that selectively pulls the XML item from the XML stream, at least in part, on the parse request* (page 10). It is submitted that, in paragraphs [0027]-[0029], Cseri specifically discusses several APIs for XML, such as SAX and DOM, which work in conjunction with XML parsers. It is well known to person of ordinary skill in the art, that DOM consists of interfaces for different XML elements (i.e., XML items) such as Node, Document, Element, Attr, NamedNodeMap, CDATA, to name a few. The DOM interfaces include set and get methods for different elements, which enable applications to selectively "pull" (i.e., retrieve) the XML items from the stream. And the XML item to be pulled or retrieved from the stream is determined by the DOM interface and method (associated with the item) and the input parameters for the method used to retrieve the item. Furthermore, in order to selectively retrieve XML items, appropriate methods of DOM interfaces have to be invoked,

that is to say, parse requests have to be made. Thus, it is clear that DOM anticipates *a reader that selectively pulls the XML item from the XML stream, at least in part, on the parse request.*

9. In view of the fore going discussion, rejection of claims 1-5, 8, 10-12, 16-20, 22-24, 26, and 27 under 35 USC 102(e), and claim 9 under 35 USC 103(a) is considered proper and maintained.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1-5, 8, 10-12, 16-20, 22-24, 26, and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Cseri et al. (US 2003/0046317), hereinafter, *Cseri et al.*.

Claim 1

Cseri et al. teach a computer system (e.g., see FIG.1 & associated text;) for parsing XML (e.g., see *XML parser 310* FIG.2 & associated text; see *XML parser 310a* FIG.3A & associated text; see *460, 470* FIG.4B & associated text; see *parsing, XML documents* para.[0014]), the system comprising:

- A scanner that parses an XML stream (e.g., see *xml 250* FIGS.3A,3B & associated text; see *streaming access* para.[0016]) to locate at least one XML token (e.g., see *tokenization* para.[0004]; see *tokenizing, tokens* para.[0006]; see *XML tokens* para.[0123]) associated with an XML item (e.g., see *elements, attributes* para.[0004]; see *tag, attribute* para.[0006]);
- A reader that selectively pulls the XML item from the XML stream (e.g., para.[0004]-[0005]; see *parsing of data* para.[0006]; see *DOM* para.[[0027]-[0029]); and
- A retriever that retrieves information associated with the pulled XML item (e.g., see *490* FIG.4B & associated text; see *receiving application or program* para.[0005]).

Claim 2

The rejection of base claim 1 is incorporated. *Cseri et al.* further teach the XML item is one of a start token, an end token, markup, content, an entity reference, an external reference, an element, a tag, a character data, an attribute, a CDATA section, a

comment and a processing instruction (e.g., see *elements, attributes* para.[0004]; see *XML tag* para.[0125]).

Claim 3

The rejection of base claim 1 is incorporated. *Cseri et al.* further teach a checker that determines whether the pulled XML item is well-formed (e.g., see *grammar, well-formed* para.[0033]; see *XHTML* para.[0043]; see *parser, violation of XML rules* para.[0057]; see *well-formedness* para.[0058]).

Claim 4

The rejection of base claim 1 is incorporated. *Cseri et al.* further teach a validator that determines whether pulled XML item is valid (e.g., see *valid, DTD* para.[0035]; see *validation* para.[0042]; see *XHTML* para.[0043]; see *parser, violation of XML rules* para.[0057]; see *validating parser* para.[0058]).

Claim 5

The rejection of base claim 1 is incorporated. *Cseri et al.* further teach the scanner facilitates navigating a virtual node in a stream of XML nodes (e.g., see *DOM* para.[0027]-[0029]), and resolves an external reference in the XML stream (e.g., see *DTD, pointer to a URL* para.[0058]).

Claim 8

The rejection of base claim 1 is incorporated. *Cseri et al.* further teach where the reader selectively pulls an XML node from the stream of XML nodes based, at least in part, on data provided to the reader by a parse requestor (e.g., see *DOM* para.[0027]-[0029]).

Claim 10

The rejection of base claim 3 is incorporated. *Cseri et al.* further teach the checker determines whether the pulled XML item is well-formed base, at least in part, on comparing the pulled XML item to one or more syntax documents (e.g., see *grammar, well-formed* para.[0033]).

Claim 11

The rejection of base claim 4 is incorporated. *Cseri et al.* further teach the validator determines whether the pulled XML item is valid base, at least in part, on comparing the XML item to one or more DTD, schema, and external data representation documents (e.g., see *valid, XML schema, DTD* para.[0035]; see *XML Schemas, XHTML* para.[0043]; see *DTD* para.[0058]).

Claim 12

The rejection of base claim 1 is incorporated. *Cseri et al.* further teach where at least one of the scanner, the reader and the retriever is an object (e.g., see *Tokenizer*

210b FIG.4A & associated text; see *XML parser 310a, 310b* FIG.4B & associated text; see *computer-executable instructions, program modules, objects* para.[0020]).

Claim 16

Cseri et al. teach a computer-implemented method for parsing XML, the method comprising:

- Instantiating a pull model parser (e.g., see *XML parser 310* FIG.2 & associated text; see *XML parser 310a* FIG.3A & associated text; see *XML parser 310b, 310* FIG.3B & associated text; (e.g., see *parser, use by any application, process, device* para.[0062]);

Cseri et al. do not expressly disclose establishing a state (i.e., initial state position) associated with the pull model parser, that is to say, having associated a state machine with the pull model parser. However, these features are deemed to be inherent in the teaching of *Cseri et al.* because a computing device or a computer where the parser resides is considered to be a state machine associated with the parser wherein each machine instruction [received from the parser code] is input that changes (i.e., updating or repositioning) one or more states (i.e., established initial state position) and may cause other actions/events to take place. Furthermore, each computer's data register stores a state. The ROM from which a boot program is loaded stores a state (the boot program itself is an initial state). The operating system is itself a state and each application (i.e., parser) that runs begins with some initial state that may change as it

begins to handle input (i.e., XML stream). Thus, in view of the forgoing discussion, *Cseri et al.* clearly teach

- Establishing a state (i.e., initial state position within the state machine), that is to say, having associated the state machine with the pull model parser (e.g., see *Receiving Device 300* FIGS.2,3A,3B & associated text; see *computing device* FIG.1 & associated text);
- Accepting a parse request (e.g., see *parser, use by any application, process, device* para.[0062]);
- Selectively pulling an XML item based, at least in part, on the parse request (e.g., para.[0004]-[0005]; see *parsing of data* para.[0006]; see *DOM* para.[[0027]-[0029]); and
- Updating the state based on the selectively pulled XML item (see above discussion).

Claims 17-20

Claims recite limitations, which have been addressed in claims 3, 10, 4, and 11 respectively, therefore, are rejected for the same reasons as cited in claims 3, 10, 4, and 11.

Claim 22

The rejection of base claim 16 is incorporated. *Cseri et al.* further teach where instantiating the pull model parser comprises:

- Associating a stream with the pull model parser (e.g., see *XML 250* FIGS.3A,3B & associated text); and
- Initializing a scanner adapted to facilitate navigating within the stream (e.g., see *Tokenizer 210b* FIG.4A & associated text; see *XML parser 310a, 310b* FIG.4B & associated text).

Claim 23

The rejection of base claim 16 is incorporated. Claim recites limitations, which have been addressed in claim 16, therefore, is rejected for the same reasons as cited in claim 16.

Claim 24

The rejection of base claim 16 is incorporated. *Cseri et al.* further teach where selectively pulling an XML item further comprises:

- Positioning a virtual node over an XML node within a stream of input XML nodes (e.g., see *DOM* para.[0027]-[0029]); and
- Selectively extracting an XML item from the XML node over which the virtual node is positioned (e.g., see *DOM* para.[0027]-[0029]); and
- Resolving an external reference in the XML item (e.g., see *DTD, pointer to a URL* para.[0058]).

Claim 26

The rejection of base claim 16 is incorporated. Claim recites limitations, which have been addressed in claim 16, therefore, is rejected for the same reasons as cited in claim 16.

Claim 27

Cseri et al. teach a computer readable medium (e.g., see FIG.1 & associated text; see *computer-executable instructions, program modules, devices* para.[0020]) storing computer executable instructions for a method for parsing XML, the method comprising:

- Operably connecting a pull model parser and a state machine (see *state machine* claim 16);
- Establishing an initial state in the state machine (see *state position* claim 16);
- Accepting a parse request (see claim 16);
- Selectively pulling an XML item identified in the parse request (see claim 16);
- Maintaining the state machine in response to one or more events associated with parsing and/or pulling the pulled XML item (see claim 16);
- Checking the pulled XML item to determine whether it is well-formed (e.g., see *grammar, well-formed* para.[0033]; see *XHTML* para.[0043]; see *parser, violation of XML rules* para.[0057]; see *well-formedness* para.[0058]); and
- Checking the pulled XML item to determine whether it is valid (e.g., see *valid, DTD* para.[0035]; see *validation* para.[0042]; see *XHTML* para.[0043]; see *parser, violation of XML rules* para.[0057]; see *validating parser* para.[0058]).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Cseri et al.* in view of Houben et al. (US 2002/0147745), hereinafter, *Houben et al.*.

Claim 9

The rejection of base claim 1 is incorporated. *Cseri et al.* do not expressly disclose the retriever exposes data model and/or Infoset information associated with the pulled XML item. However, *Houben et al.* disclose a method of parsing XML (e.g., see *DOM, XML parser* para.[0015]) wherein the retriever exposes data model and/or Infoset information associated with an XML item (e.g., see *DOM, internal data structure 1805, infoset* para.[0055]). *Cseri et al.* and *Houben et al.* are analogous art because they are both directed to XML parsers. It would have been obvious to one of ordinary skill in the pertinent art at the time the invention was made to incorporate the teaching of *Houben et al.* into that of *Cseri et al.* for the inclusion of exposing the Infoset information. And the motivation for doing so would have been to enable manipulation of the XML document (e.g., adding and deleting nodes and leaf elements of the XML document) by

software objects (via exposed methods for operation on the infoset such as add and delete methods) (e.g., see *add method 1815, delete method 1820* para.[0055]).

Conclusion

16. **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chrystine Pham whose telephone number is 571-272-3702. The examiner can normally be reached on Mon-Fri, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on 571-272-3695. The fax

phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CP
August 2, 2005

TUAN DAM
SUPERVISORY PATENT EXAMINER